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# A REPORT

UPON THE

Public Health of the Borough and  
Port of Great Yarmouth,

FOR THE YEAR 1892,

COMPRISING SOME PARTICULARS OF

POPULATION, VITAL STATISTICS, CAUSES OF  
DEATH AND PARTICULARS OF ZYMOTICS;

TOGETHER WITH

*The Numbers and Characters of the various Nuisances abated, and  
a short account of the more*

IMPORTANT SANITARY MATTERS,

DEALT WITH BY THE U. & P.S.A. BY

**JOHN BATELY, M.D., L.R.C.P., LOND., &c.**

*Medical Officer of Health and Medical Superintendent of the Urban  
Sanitary Authority's Hospital.*

—————:O:—————

PRINTED BY ORDER OF THE SANITARY COMMITTEE OF THE CORPORATION.

—————:O:—————

**Great Yarmouth :**

J. BUCKLE, STEAM PRINTER, KING STREET.

1893.





# R E P O R T .

---

TO THE GREAT YARMOUTH URBAN SANITARY  
AUTHORITY.

GENTLEMEN,

The following I respectfully submit for your consideration as my annual report for 1892.

The estimated population of this Borough stood, on the 1st of last July, at 49,636, and by the end of the year, it had probably increased to 49,764.

The vital statistics I have to call your attention to refer to the fifty-two weeks ending with the 31st of last December, and during that time there were registered as occurring within the limits of your district,

1,372 BIRTHS and 1,030 DEATHS.

By applying these figures to the estimated population as given for the middle of last year, there evolves a

BIRTH RATE of 27·64, and a

DEATH RATE of 20·75 per 1,000.

Of all the births 6·4 per cent were illegitimate. Rather over 16 per cent. of the baby population of last year died before it was a twelvemonth old ; the rate of deaths being one-third heavier among the illegitimate than those born in wedlock.

For many years I have indicated the annual death rates obtaining in each of the three registration districts within this Borough, and last year I remarked upon the Gorleston rate being so much higher than usual. On this occasion the death rates of the three districts have resumed their accustomed sequence, and they stand as under :—

24·46	per 1,000	in the Northern District,
20·12	„ „	Southern „ and
15·16	„ „	Gorleston and Southtown.

At the Workhouse in the Northern district there were 80 deaths of townspeople and 4 strangers, curiously, the exact numbers of the previous year. At the Royal Naval Hospital, in the Southern, there were 17 deaths of men belonging to the Royal Navy, and at the Public Hospital in the same district there were 21 deaths. How many strangers and visitors were included in the Yarmouth death roll of last year I am unable to say, for beyond giving the addresses where the deaths took place, my returns give no information as to the late homes of the deceased.

The tables of Deaths on page 6 and 7 is in accordance with the Local Government Board's direction, and exhibits many particulars as to ages and causes of death within your Sanitary district during 1892. I have supplemented it by giving the totals of like particulars for several years past, so that comparison of the various years may be made.

Of those Zymotic diseases the Registrar General takes special cognizance of as indicative of insanitary conditions, and which he quotes against us, there were within the Borough during last year 123 deaths, producing

a death rate of 2·47 per 1,000 of the persons then living there. These figures with the chief of those given on previous pages, I here tabulate so as to bring them into contrast with the averages of the ten years last past.

Periods.	Births.	Rate.	Deaths.	Rate.	Zymotic Deaths.	Rate.
During 1892 ....	1372	27·64	1030	20·75	123	2·47
Average of ten } years, 1882-91 }	1592	32·76	974	20·04	124	2·55

It would be exceedingly interesting to know how the above figures compare with the like particulars of other towns of similar size to Yarmouth, but the Registrar General has of late years ceased to give the general and zymotic death rate of individual towns, and only affords such information as to groups of districts. Therefore, all I can do is to put together the figures he gives in his quarterly reports for last year and place in contrast similar figures relating to Yarmouth alone.

Annual death rates per 1,000 from all causes and from several zymotic diseases during 1892 :—

	All Causes	Princpl. Zymotic Disease.	Small-pox.	Measles	Scarlet Fever.	Diphtheria.	Whooping Cough	Fever.	Diarrhoea.
England and Wales	18·9	1 90	0 01	0·44	0·19	0 19	0·42	0·14	0 48
33 Great Towns	20·6	2·64	0·01	0·68	0 24	0 27	0·57	0·14	0·71
67 other Towns (including Yarmouth)	18·8	2·02	0·02	0·41	0·19	0·14	0 49	0 18	0 56
England & Wales, } less the 100 Towns }	17·9	1 38	0·01	0·29	0·14	0·16	0 32	0 12	0·32
Yarmouth (alone)	20·75	2·47	0·08	0·10	0·20	0·16	0·74	0·40	0 78



# TABLE OF

During the year 1892, in the Urban Sanitary District of Great Yarmouth,

Names of Localities adopted for the purposes of these Statistics.  (a)	Mortality from all causes, at subjoined ages.						
	At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.
	(b)	(c)	(d)	(e)	(f)	(g)	(h)
NORTHERN DISTRICT .. ..	519	116	54	12	19	154	164
SOUTHERN DISTRICT .. ...	317	65	40	8	16	94	94
GORLESTON & SOUTHTOWN .. ..	183	50	24	9	13	40	47
RUNHAM VAUXHALL .. ..	11	0	4	0	0	2	5
TOTALS ..	1030	231	122	29	48	290	310

During the Year 1891 ..	1042	248	133	52	36	260	295
Ditto 1890 ..	986	271	90	50	42	222	311
Ditto 1889 ..	875	249	79	37	48	197	265
Ditto 1888 ..	1002	290	82	28	43	258	301
Ditto 1887 ..	986	265	129	31	57	214	290
Ditto 1886 ..	1087	348	123	25	42	221	328
Ditto 1885 ..	915	222	102	39	46	233	273
Ditto 1884 ..	1017	301	133	43	43	233	264
Ditto 1883 ..	904	232	86	35	41	206	304



# DEATHS,

classified according to **DISEASES, AGES, and LOCALITIES.**

Mortality from subjoined causes, distinguishing Deaths of Children under Five Years of age.

(i)	1.	2.	3.	4.	Fevers.					10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.
					Typhus	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.													
	Smallpox.	Scarlatina.	Diphtheria.	Membranous Group.						Cholera.	Erysipelas.	Measles.	Whooping Cough	Diarrhoea and Dysentery.	Rheumatic Fever	Ague.	Phthisis.	Bronchitis, Pneumonia & Pleurisy.	Heart Disease.	Injuries.	All other Diseases	Total.
Under 5	2	1	0	—	—	0	—	—	0	—	0	3	22	14	—	0	2	34	0	2	90	170
5 upwds	2	1	3	—	—	6	—	—	1	—	1	0	1	3	—	1	33	87	31	15	164	349
Under 5	—	4	—	—	—	1	—	—	—	—	—	2	12	8	—	—	0	29	0	8	41	105
5 upwds	—	2	—	—	—	8	—	—	—	—	—	0	0	3	—	—	21	41	17	8	112	212
Under 5	—	1	3	3	—	0	—	—	—	—	0	—	2	9	—	—	0	7	0	3	46	74
5 upwds	—	0	2	0	—	4	—	—	—	—	1	—	0	1	—	—	9	11	10	5	66	109
Under 5	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	0	0	1	4
5 upwds	—	0	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	3	1	1	2	7
Under 5	2	7	3	3	—	1	—	—	0	—	0	5	36	32	—	0	2	71	0	13	178	353
5 upwds	2	3	5	0	—	18	—	—	1	—	2	0	1	7	—	1	63	142	59	29	344	677
Under 5	—	10	9	3	—	2	0	—	0	—	1	18	22	38	0	—	1	78	0	6	193	381
5 upwds	—	1	10	0	—	28	3	—	3	—	3	1	0	8	3	—	69	97	56	33	328	643
Under 5	—	1	3	2	—	1	1	—	0	—	0	2	21	46	0	—	9	60	0	6	209	361
5 upwds	—	0	0	1	—	32	2	—	4	—	3	0	2	12	2	—	63	96	51	26	331	625
Under 5	—	—	1	3	—	4	—	—	0	—	3	18	1	53	0	—	10	56	0	8	174	328
5 upwds	—	—	1	2	—	21	—	—	2	—	0	2	0	5	2	—	59	55	54	31	310	574
Under 5	1	—	1	7	0	0	0	—	0	—	2	1	11	65	0	—	9	55	1	5	214	372
5 upwds	0	—	1	0	1	19	3	—	3	—	1	0	0	6	2	—	60	108	62	35	330	630
Under 5	—	4	2	8	—	4	—	—	0	0	1	25	14	42	0	—	1	92	1	6	194	394
5 upwds	—	3	0	3	—	18	—	—	5	1	3	0	2	1	1	—	64	87	66	42	295	592
Under 5	—	14	2	5	—	0	0	—	0	—	1	11	28	89	2	—	2	54	1	12	250	471
5 upwds	—	4	1	0	—	14	1	—	2	—	4	1	0	6	3	—	54	102	49	23	352	616
Under 5	—	8	7	6	—	2	0	—	0	—	2	6	5	32	0	—	2	50	2	6	196	324
5 upwds	—	1	1	6	—	42	2	—	1	—	6	0	0	4	2	—	72	83	56	22	293	591
Under 5	0	0	10	17	—	0	0	—	0	4	3	31	19	62	0	—	3	66	0	1	218	434
5 upwds	1	1	4	6	—	18	1	—	2	2	4	3	0	2	5	—	68	70	69	24	303	583
Under 5	—	1	3	21	—	1	1	—	—	—	1	—	9	35	—	—	2	45	0	3	196	318
5 upwds	—	2	2	7	—	6	0	—	—	—	2	—	0	6	—	—	67	74	51	31	338	586

The first line of figures relates to England and Wales as a whole, *i.e.*, all urban and rural districts massed together ; the second line relates to London and the great centres of trade and commerce, wherein the conditions of health in the aggregate are generally considered most unfavourable ; the third line relates to the large urban districts, while the fourth lines relates to all the small towns and rural districts in which the conditions of life are most favourable. The fifth line, relating to Yarmouth alone, is from my own data.

From the above table it will be seen that the Yarmouth gross death rate last year was fully equal that obtaining even in the great towns, and it is to be accounted for by the Influenza, which was very prevalent in this district during January, 1892. In fifteen instances was that disease mentioned as a cause of death, but in how many more it so weakened the constitution as to render the patient an easy prey to other disorders, or the infirmities of old age, I have no records to show. The total number of deaths during the five weeks ending with February the 6th, amounted to 207, of which 86 were from affections of the lungs. One hundred of the deaths were under 60 years of age ; of the remainder,

32	were	between	60	and	70
41	„	„	70	„	80
33	„	„	80	„	90
and 1 over 90.					

This is a very heavy death roll, and during the period under consideration, *i.e.*, while the brunt of the Influenza lasted, our death rate was equal to 43·4 per annum.

From considering our last year's record of deaths, we now pass to our record of illnesses caused by infectious diseases, and made known to us through the operation of the Notification Act. The following table of the numbers, nature and localities of such illnesses, is prepared by direction of the Local Government Board, and it also indicates the number of such cases treated at the Isolation Hospital. Of the 539 cases reported, 97 were received into the Isolation Hospital, and of these 28 were actual paupers, and paid for by the Guardians, 61 were persons whose circumstances did not admit of any payment, and in only 8 instances did the patients, or their friends, pay the small charges you required of them.

In the early days of the hospital only those cases which were "without proper lodging or accommodation, or on board a ship or vessel," or afflicted with Small-pox, were removed there. Later on you admitted paupers, both from the Union-house and from the districts; and in recent years, in consequence of compulsory notification making known to us the whereabouts of cases of infectious disease, many persons whose poverty and location make it advisable, are promptly removed to your hospital before they have actually fallen into the hands of the Relieving Officer, and consequently before they have been legally recognised as paupers. In thus anticipating poor law action, it happens that the patients become properly housed and well provided for by you, and such being the case they technically cease to be *in forma pauperis*, no matter how destitute they may otherwise be. Hence it is that promptness on the part of your Inspectors, which is the essence of sanitary

# Table of Population, Births, and of New Cases of Infectious Sickness,

Coming to the knowledge of the Medical Officer of Health, during the year 1892, in the Urban Sanitary District of Great Yarmouth; classified according to **Diseases, Ages, and Localities.**

Names of Localities adopted for the purpose of these Statistics.	Population at all Ages.			Registered Births. (d)	Aged under 5 or over 5 (e)	New cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health.										Number of such Cases Removed from their Homes in the several Localities for Treatment in Isolation Hospital.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Census 1891. (b)	Estimated to middle of 1892. (c)	(a)			Fever.						Fever.				Fever.						Fever.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
						Smallpox.	Scarlatina.	Diphtheria.	Membranous Group.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Smallpox.	Scarlatina.	Diphtheria.	Membranous Group.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
NORTHERN	21,143	21,213		Under 5 5 upwds	549	2 45	36 87	1 13	— —	— —	4 30	0 3	— —	— —	1 13	0 40	3 13	0 2	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —



action in such matters, places upon you the maintenance and medical care of *de facto* paupers. It is this non-paying indigent class of patients, that is chiefly instrumental in swelling your hospital roll as the following figures will show. For the first ten years of the hospital's existence, viz., from January, 1877, to December, 1886, the patients averaged 13·2 per year, while during the next five years, viz., to the end of 1891, they averaged 24·3 per year, or if 1892 is included, then the average number of patients amounts to 36·4 per year for the last six years. This increasing demand upon the accommodation of the hospital has led to an extension and expansion of the institution, so that in the near future you will have two establishments, one devoted entirely to the reception of Small-pox cases, well away from the town and pleasantly situate in a rural portion of your district, and the other consisting of the present hospital, completely renovated with a new block of wards, with separate administrative, laundry, disinfecting and other buildings for ordinary infectious fever cases.

The notification of Infectious disease has been compulsory in this borough since the 1st January, 1890, and you have paid the Medical Practitioners for certificates rendered under the Act during 1890, £46 10s. 0d.; 1891, £47 8s. 0d.; 1892, £62 9s. 6d.; and on the following page I give in tabular form the number of cases of sickness from infectious diseases notified under the Act, and the deaths from such diseases occurring in each month during last year. The total number of sicknesses amount to 539, many of which were very mild and of transient character.

MONTH.	Small pox.		Scarlatina.		Diphtheria.		Membranous Croup		Typhoid.		Continued.		Puerperal.		Erysipelas.	
	Sickness	Deaths	Sickness	Deaths	Sickness	Deaths	Sickness	Deaths	Sickness	Deaths	Sickness	Deaths	Sickness	Deaths	Sickness	Deaths
JANUARY	1	..	23	2	4	1	..	..	10	4	..	..	..	..	..	..
FEBRUARY	6	..	27	1	4	2	..	..	11	2	..	..	..	..	..	..
MARCH	7	..	32	1	5	..	1	..	8	2	..	..	..	..	4	1
APRIL	31	2	21	..	5	1	1	1	5	1	..	..	..	..	4	..
MAY	13	2	15	..	1	..	1	1	9	1	1	..	..	..	1	..
JUNE	2	..	19	1	4	3	1	1	10	2	..	..	..	..	2	..
JULY	..	..	11	1	7	1	..	..	11	1	..	..	..	..	2	1
AUGUST	..	..	9	..	3	..	..	..	2	..	1	..	1	..	1	..
SEPTEMBER	..	..	35	1	1	..	..	..	5	2	2	..	..	..	3	..
OCTOBER	..	..	30	1	..	..	..	..	12	1	1	..	..	..	1	..
NOVEMBER	..	..	50	1	2	..	..	..	7	2	2	..	1	1	6	..
DECEMBER	..	..	32	1	2	..	..	..	6	1	..	..	1	..	3	..
Totals	60	4	304	10	38	8	4	3	96	19	7	..	3	1	27	2

Infectious disease is dissiminated by an infective something passing from the afflicted to the healthy, and it not infrequently happens a patient has such a disease so mildly that he really is not aware there is anything seriously amiss with him. It is these very mild cases that do more to spread infection than those in which the patients are so ill as to necessitate medical attendance and confinement to house or bed. In these latter cases the disease is recognised and steps taken to prevent the contamination of other persons. And again, it is a fact that cases of disease of a severely specific and epidemic character are frequently preceded, and generally accompanied with numerous cases *sui generis* but of a comparatively harmless character. This is well illustrated by water-pox accompanying small-pox, diarrhoea and cholera, croup and diphtheria, continued and typhoid, &c. The upshot of this is that with unrecognised cases on the one

hand, and those of a doubtful character on the other, an outbreak of specific infectious disease may occur and get hold of a locality before one is really aware of its presence. The small-pox infection which gave rise to the 60 cases above noted could not be traced, but it evidently was adrift in this Borough in the middle of January last year, and was first recognised on the last day of that month in two young men who lived in opposite and distant districts, and who fell ill simultaneously. The medical men attending these cases requested my opinion of them and I confirmed their diagnoses. Both cases were promptly removed to the Isolation Hospital, where they subsequently were each joined by two members of their respective families. The disease in all of them was very modified, two or three suffering but very slightly. And it was quite possible and very probable other persons having the disease equally mild were moving about the town undetected, for one could hardly expect the source whence the two first cases had derived their illnesses had infected them alone. Indeed rumour had it that there were such cases in the North-end, and when we did get positive information of the whereabouts of the infection, the true nature of at least one patient's illness had not been recognised by his Medical attendant. From this time every Medical man in the town was on the alert for small-pox, and more than every case was reported, as I was able in a few instances to correct the diagnoses of my confreres. Small-pox has of late years occurred so rarely that it is quite possible for a very able practitioner to be deceived with a modified case and imagine he has a disease of more common occurrence to deal with. When, however, he is aware of the fact that



small-pox is abroad, he sometimes err on the other side. The additional accommodation you provided at the Hospital and the precautions you adopted both there and at each house where a case occurred, soon began to tell upon the infection, and it is interesting to note that of the 41 private houses reported as invaded by the disease, more than one case occurred in only eight of them. This is good testimony to the promptness of removal and thoroughness of the disinfection and cleansing the houses received at the hands of your Sanitary Inspectors. Re-vaccination served us but little as so few persons who had been in contact with the patients would submit to the operation. Our more effectual method of arrest was to note all persons who had been in contact with the infection and to have them under observation for at least a fortnight, so that if any complained of feeling unwell we got the patient seen by his medical man at once. By this means we had them in Hospital at the earliest possible moment and generally before they had done harm to those around them. This system of espionage discovered to us how insusceptible the adult population generally are to small-pox, and we were surprised at the large number of contacts that escaped unharmed. Very many were unaware they had been within the area of infection, and still more were ignorant we were having an eye upon them.

A popular sea-side resort is always peculiarly liable to infectious disease, as it is the common practice of the public to bring their convalescents to such places. Should the illness have been of an infective character the chances are that, notwithstanding the greatest care, some con-

tamination accompanies the visitors or their clothing. Repeatedly has scarlet fever been brought to this town by those coming to recruit their health, and it would seem exceedingly likely an imported case started an epidemic of that fever here in the middle of 1891, which has continued with us ever since. At any rate, I could find no insanitary conditions of the house in which the earlier cases occurred to account for the outbreak. Fortunately, the type of the malady has been very mild and the majority of the patients have had the disease only slightly, a fact evidenced last year by a mortality of barely one in thirty of those attacked. Although each house invaded by the malady is visited, and printed directions given for preventing the dissemination of the infection, the people themselves regard the disease as of such trivial nature that very few take any precautions at all. Among the poorer classes especially, a sick child will attract the neighbours, and very frequently a gossiping mother takes home from an infected house most serious mischief to her own children. In such an event she attributes her child's illness to anything or anybody rather than herself. Unquestionably this congregating of women and children within touch of the infection, is the chief means by which scarlet fever is spread, and the ordinary insanitary conditions of their dwellings play but a subordinate part in such diffusion. How much insanitary conditions may contribute towards originating the malady is said to be very uncertain. Some will hardly admit it is possible for them to do so, but most assuredly filth will produce fever, and why not scarlet fever? Therefore every house in which a case of fever is reported is thoroughly examined and if insanitary conditions are dis-

covered, they are reported to your House-to-House Committee, and the necessary orders for their correction issued.

With typhoid fever, however, so frequently do a certain set of insanitary conditions occur, that one is impelled to associate them with the causation of the disease. These are putridity, moisture, and warmth in connection with the subsoil and surroundings of the sick house. In my report for 1890, I discussed these conditions somewhat at length, and further observations of the numerous dwellings since invaded have tended to confirm the conclusions I therein stated. Of course many of the cases may have been from pre-existing ones, for where privies and surface wells exist, specific contamination is not only a possibility, but exceedingly likely. For a long time now you have been abolishing privies where they are found in close proximity to dwellings, or in confined spaces about them, and in order to place w.c.'s in the Rows, you have caused many of them to be under-drained. This work is still going on, and so is the closure of impure drinking wells—another work of the utmost importance in relation to typhoid. The public sewers are also having your attention, a storm overflow being constructed to that in Caister Road, and in the near future it will be necessary to relay the north main sewer, as the large number of w.c.'s now discharging into it, and the more copious flushings it is getting from the sea-water tanks, severely tax its capabilities.

The majority of the cases of diphtheria and membranous croup were school children, and their illnesses

were attributed to some sanitary defect about the schools. Two Elementary Schools in particular were indicated, and the offices of these were thoroughly cleansed and some improvements in the w.c.'s effected, but nothing of the nature of a serious nuisance was discovered in either of them.

In all the many investigations I made last year as to the probable cause of infectious illnesses, in no instance did I recognise that disease had arisen from the milk supply, and neither did I note any case of infection from the clothes sent out from tailors, dressmakers, or laundries.





# SANITARY WORK.

## NUISANCE REMOVAL.

Total number of nuisances attended to by Inspectors	1101
Remedied by Inspectors' notices only	640
Dealt with by formal notices from Town Clerk	461
And they comprised the following :—	
(a) To convert privies into w.c's	96
(b) To relay back-yards and passages in concrete	63
(c) To reconstruct or repair privies	55
(d) To repair houses and make fit for habitation	44
(e) To close polluted wells	42
(f) To replace defective gullies in back-yards with stoneware syphons	37
(g) To make, alter, or reconstruct drains	35
(h) To disconnect sink pipes and bath wastes from drains	19
(i) To whitewash and cleanse houses	15



(j) To ventilate soil pipes and repair w.c.'s	11
(k) To put up water spouting ...	9
(l) To repair cellar flaps, floors, &c. ...	9
(m) To discontinue keeping fowls, rabbits, &c.	7
(n) To remove offensive offal, manure, &c. ...	7
(o) To fill up disused cisterns, cesspools, &c.	5
(p) To bottomfye dyke, rebuild manure bin, abate overcrowding, &c., &c. ...	7

The House-to-House inspection, to which I have referred in former reports, was interrupted at the end of January, 1892, by discharging one of the house inspectors and retaining the other permanently as an additional Inspector of Nuisances. Thus having two Inspectors of Nuisances you divided the area of your district between them, and arranged for their daily inspection of a set portion, so that each should see every part of his district at least once a fortnight. You also directed that in so far as the house-to-house inspection was incomplete in their respective districts, they should complete it. It so happened that the major portion of the house-to-house inspection remaining to be done was in the south part of the town, amongst some of the best residences in Inspector O'Connor's district, and he found himself unable to carry out that work and attend to his usual routine duties besides. Therefore you directed Inspector Crane, the former House Inspeccor, to complete all that was left undone, and the work is proceeding satisfactorily. I have visited systematically a great deal of the work the House Inspectors caused to be done, and am pleased with the improvements in the sanitary conditions of dwellings they effected.

Under the Housing of the Working Classes Act, I gave certificates for the condemnation of 44 houses last year. All the houses were closed, some renovated and some demolished. Many of the houses were closed upon the Town Clerk's notice without waiting for the Magistrates' order, and several owners demurred to the publicity and cost of obtaining that order, especially as they offered no objection to the closure. It is desirable that a closure by consent formally entered into by the owner with the Sanitary Authority should have the same force as closure by magisterial order.

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The Common Lodging Houses have been frequently visited, and on account of the spread of small-pox by the agency of tramps, their inmates have had rather more attention than they are accustomed to. I prepared a hand bill and delivered a copy to the keeper of each common lodging house, specifying the requirements of the law should a case of infectious disease occur in the lodging house, and also the penalties attaching to any default in reporting that fact. The houses usually occupied as Common Lodging houses are large old dwellings—family residences of a bye-gone day—but now so worn out and hemmed in by other dwellings of a squalid character, that it requires constant attention to keep them habitable or wholesome. One of them was recently closed by Magistrates' order on account of its decayed and filthy condition. Houses built specially for the purpose of Common Lodgings with proper conveniences, baths, &c., are much to be desired in this town.



The under-draining of the Rows, so that w.c.'s may be substituted for privies is proceeding apace. There are many houses so ruinous as to be not worth the cost of the drain, and these are being dealt with under the Housing of the Working Classes Act. It is most desirable sites of demolished houses should be preserved as open spaces to enable fresh air and sunlight to get to the houses around. Surely there is no town in England where the houses are more densely packed together than in Yarmouth.



The Inspector of Fish has again done good work at the Wharf and amongst the fish shops in the town. During last year he seized, condemned, and destroyed—

373 trunks of trawl fish, estimated to weigh 14 tons  
 360 swills of herrings, representing 18 lasts or 36 „

—

50 „

—

I observe the curing of herring by the smoke of oak billet is being much departed from and the heat of burning coke substituted. This proceeding is not to the improvement of the herring as an article of food, but to make his appearance fresher—rather than of a bloater than a red—whereby a readier sale is secured in many of the continental markets. A good herring dried in the smoke of young oak is delicious and nutritious, but the sophisticated one although tempting to the eye is disappointing to the taste, and disagreeable to the stomach.

The Inspectors report visitations of Slaughter Houses, Cow Sheds, Fat and Bone Boiling Premises, Fried Fish Shops, Manure Factories, and such like noxious places, and their condition generally has been found satisfactory.





## PORT SANITARY AFFAIRS.

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The Customs Authorities of this Port are kind enough to inform me that on the 1st of January, 1893, they had on their Register 68 merchant vessels and 535 fishing craft. The number of arrivals from foreign ports during last year amounted to 282, and those coming coastwise, *i.e.*, from British ports, amounted to 886. As some of our trawlers ran into over-sea ports to sell their fish when the markets there were sufficiently tempting, we had, as a matter of fact, several more contacts with the Continent last year than the reported foreign arrivals indicate. There were 18 deaths at sea reported at the Custom House other than those occurring from shipwreck, and inquests were held on all the bodies brought ashore.

The importance of special organisations at ports for dealing with epidemic sickness arriving in vessels was well illustrated last autumn, and the service those organisations rendered the country generally, by intercepting cholera,

was universally recognised. There were, however, noted possible improvements in our first line of defence, which probably in the near future will be effected. They were mentioned in my report for 1887, where I wrote: "It would appear on the face of it but reasonable that port sanitary districts should be coincident with the Customs ports, and, therefore, within touch of each other, so as to girdle the Kingdom with responsible authorities; that the whole expense incurred in port sanitary work should be defrayed from Imperial revenue as the service is protective of the nation, and outside the sanitary needs of the port town merely; and that at each port a complete organization for boarding and inspecting ships, while yet beyond dangerous proximity to the town, should be set up by the port sanitary authority quite irrespective of the Customs, who are not always in a position to give early intimation of the approach of an infected vessel, or much help to the Health Officer in boarding her."

Nothing of importance occurred in relation to the shipping until the spread of cholera over Russia during July and August made its advent in the ports along the Baltic shore almost a certainty, and therefore vessels arriving here from those ports assumed a danger they previously did not possess. I was therefore busily engaged in visiting all such arrivals, inspecting their crews, &c., when on August 23rd a telegram from the Secretary of the Local Government Board announced the outbreak of asiatic cholera in Hamburg. The danger to this port was immense and immediate, for there was no telling what might occur on vessels recently put to sea, or about sail-

ing from Hamburg, which, if stricken off this coast, might run into Yarmouth Roads for succour. This has been the case in former cholera visitations, and the town has suffered in consequence. Therefore, I immediately gave strict orders to the Harbour Pilots not to bring in any vessel from an infected port until I had been on board such ship in the Roads and satisfied myself the crew were healthy and the vessel wholesome, and I may here say, I had the most ready and willing co-operation of the pilots in this matter. I arranged with the Customs Officers to have immediate notification of all vessels arriving from over sea, whether from infected ports or not, and this service has been rendered by those officers ever since. I also had the co-operation of the Coastguard. In order to prevent our own fishing craft bringing infection, I warned all skippers by poster and handbill not to run into any of the Continental ports and to take nothing from foreign vessels at sea. To protect the district of the Fleggs whence the town's water supply is drawn, I caused to be posted in prominent places along the sea-shore of your port district, *i.e.*, from Winterton to Corton, a notice to beachmen and boatmen, cautioning them "not to board any vessel having any of her crew ill with cholera, or which may have come directly from a port infected with cholera," but to "report the arrival of such an infected vessel to the nearest Coastguard, Customs Officer, or myself." I also communicated with the shipping agents and merchants as to the cargos due at this port, and by this means prevented a ship load of oil cake being sent here from Harburg just at the time the cholera was creating such havoc on the banks of the Elbe. Fortunately, nothing of any moment occurred, and



the vessel you hired and fitted up for hospital purposes was not once made use of. All the precautions above indicated are being renewed this year, with a Hospital on shore in lieu of the vessel, and the employment of a Port Sanitary Inspector, who is devoting his whole time to the inspection of the shipping and fishing craft, and is doing good work thereat.

The only illnesses occurring on shipboard reported to me were a case of

Measles on the brig "Alice" on June 14th.

Diphtheria on the barque "Bertha" on July 1st.

Diarrhœa on the s.s. "Terfing" on August 31st, and  
Scarlet fever on the smack "Jessie" on Oct. 25th.

The "Tirfing" on which the diarrhœa case occurred, had only the day before arrived from Riga and with all the crew apparently in good health, but the illness was of such violent character that I deemed it prudent to cause the vessel to return to the Roadstead and remain there until the patient was quite recovered. The other three cases were removed from vessels in the harbour to the Isolation Hospital, and all the four ships were thoroughly fumigated and cleansed. On the 29th August, the "Dr. Ehrenbaum," a steam trawler, of Hamburg, from the fishing grounds with 10 tons of trawl fish on board, brought up off the harbour, and the Captain desired to come in to sell his fish and take in coal, &c., but inasmuch as the fish were in Elbe ice, I declined to admit such a cargo to be sold here. He had been similarly denied admission at Ostend, and not wishing to return to Germany, but to fish out of English ports all winter, he elected to throw his fish and

ice overboard, which he did outside the sands, and cleansed and purified his vessel to my satisfaction. He then came into the harbour, got his supplies, and returned to sea.

During last year I inspected 93 vessels arriving from foreign ports, and 37 of these inspections were made in the Roadstead. Prior to our being apprehensive of cholera importation, no systematic visitation of vessels was done, but all vessels now arriving from foreign ports are visited both by myself and the temporally employed port Sanitary Inspector. Having ascertained the health of the crew, condition of the drinking water, bilges, and vessel generally, and given the Inspector directions thereon, he makes a rummage of the cabins or other quarters occupied by the ship's company, turning out all their dirty clothes, bedding, &c., and ordering such cleansing of these places and things as is necessary. He also sees the biscuit lockers and meat casks are clean, wholesome, and sweet. A dirty vessel has his daily attention until her cleansing is complete. He inspects and insists upon the cleanliness of coasters and other home craft, paying particular attention to the fishing vessels, and cautioning their skippers of the risks they run in using Continental ports, while cholera may be latent in them and the water they afford. He also visits the wherries plying upon the rivers about Yarmouth, and directs such cleansing of bilges, and cleaning and mending of cabins as are needful. The wherry-men complained much of their want of good drinking water. I was informed by several of them that up the rivers, the Bure especially, they made use of the river water when at all drinkable, but during the summer months they avoided it, if possible, as it was much



befouled with the filth thrown over from pleasure boats, and not infrequently with the putrifying carcasses of dogs, &c. Generally they got a supply of water from any pump they could find along shore, those of the public houses being handiest. When lying alongside ship in Yarmouth Harbour it was not an uncommon thing to beg a kettle of water from the ship. Whether that vessel's water supply was from a cholera-tainted river or from a purer source they never thought to enquire. I am glad to say you have recognised the importance of the wherry-men having good water, and recently placed a tap on the Company's main near the river side, so that they may now have free of cost to them as much as they require for drinking and cooking purposes.

The foregoing I respectfully submit for your consideration,

And am, Gentlemen,

Yours very obediently,

JOHN BATELY, M.D.,

*Medical Officer of Health.*



